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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/599,515 | 09/29/2006 | Gerhard Bock | 117393-062 | 1134 |
| 24573 | 7590 | 04/13/2010 | EXAMINER | |
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| CHICAGO, IL 60690 | | | | |
| | | | ART UNIT | PAPER NUMBER |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|--|------------------------------------|--|
| Office Action Summary | Application No. 10/599,515 | Applicant(s) BOCK ET AL. | |
| | Examiner Jori S. Reilly-Diakun | Art Unit 2878 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 February 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 3-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 3-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 September 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This Office Action is in response to the Applicants' communication filed (RCE and Amendment) on 26 February 2010. In virtue of this communication, Claims 3-6 are currently presented in the instant application.

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 26 February 2010 has been entered.

Drawings Objections

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "counter" must be shown or the feature(s) canceled from the claim(s). No new matter should be entered. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the

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remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

3. Claim 3 is objected to because of the following informalities: --,-- should be placed after "at least one light sensor" (Line 6) and "at least one light sensor" (Line 7). Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 3-6 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

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With respect to Claims 3-6, the limitation of “a counter” has been amended to the claims. The specification does not provide sufficient explanation of said limitation and its relation to the rest of the system (see Paragraph [0038] of the Specification for only support for the limitation) as to reasonably convey to one of ordinary skill in the relevant art the possession of the claimed invention and as to provide a clear representation of the invention claimed.

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 3-6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With respect to Claims 3-6, the limitation of “a counter” has been amended to the claims. It is unclear for the claims (and Applicant's disclosure) what is intended by the limitation “a counter”, thereby rendering the claim's scope indefinite. For purposes of examination, “a counter” has been interpreted to mean a means of recording or registering on a memory or processing system a chronological sequence of events from the light sensor.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

9. Claims 3-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Nakajima (Pub. No.: US 2002/0122217 A1).

With respect to Claim 3, Nakajima discloses, in Fig. 21, an optical scanning system for projecting a laser comprising an oscillating mirror (movable mirror; see Fig. 21), a laser light source (laser diode 2411), wherein a projection light bundle is produced starting from the laser light source using the oscillating mirror (see Fig. 21), and at least one light sensor (photodiodes 2406, 2407) is arranged at an edge region of the projection light bundle (see Fig. 21), the at least one light sensor, using a modulate brightness level (wherein photodiodes detect brightness/intensity and wherein the brightness is modulated by the laser diode 2411) obtained from the at least one light sensor, and a counter to detect a position of the oscillation mirror and a specific characteristic of the modulated brightness level (see Page 13, [0145], Lines 24-39; wherein the photodiodes 2406, 2407 detect the position of the scan mirror using the modulated brightness level, record and count the registry of a characteristic of the modulated brightness level, particularly intensity, and use said information to monitor the oscillation status and correct the optical scanning function).

With respect to Claim 4, Nakajima further discloses that the brightness of the projection light bundle is modulated at least in a partial region of an image to be projected and that the position of the oscillating mirror is determined by correlating the modulation of the projection

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light bundle with a detector signal from the light sensor (see Page 13, [0145]-[0146]; wherein the brightness of the projection light bundle is modulated at in the region of projection and wherein photodiodes register the modulated brightness and correlate the registry of said modulated brightness with the modulation performed by the control circuit on laser diode 2411 thereby determining the position of the oscillating mirror and the behavior thereof).

With respect to Claim 5, Nakajima discloses, in Fig. 21, a method of operating an optical system for projecting with a laser comprising modulating a brightness level at least in a partial region of an image to be projected in the projection system (see Page 13, [0145]-[0146]; wherein the brightness is modulated by the laser diode 2411), obtaining a modulated brightness level and using said modulated brightness level for detecting the oscillation status of an oscillating mirror, a position of the oscillating mirror, and a specific characteristic of the modulated brightness level using the modulated brightness level obtained from light sensor and using a counter (see Page 13, [0145], Lines 24-39; wherein the photodiodes 2406, 2407 detect the position of the scan mirror using the modulated brightness level, record and count the registry of a characteristic of the modulated brightness level, particularly intensity, and use said information to monitor the oscillation status and correct the optical scanning function).

With respect to Claim 6, Nakajima further discloses that the position of the oscillating mirror is determined by correlating the modulation with a detector signal generated from the light sensor (see Page 13, [0145]-[0146]; wherein the brightness of the projection light bundle is modulated at in the region of projection and wherein photodiodes register the modulated

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brightness and correlate the registry of said modulated brightness with the modulation performed by the control circuit on laser diode 2411 thereby determining the position of the oscillating mirror and the behavior thereof).

Citation of Relevant Prior Art

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

- Prior Art Schoon (U.S. Patent No. 4,686,363 A) teaches a scanning system having a plurality of sensors for detecting modulated light at the edge of the desired scanning area;
- Prior Art Watanabe et al. (U.S. Patent No. 5,519,518 A) teaches a projection system having a modulating device driver and a sensor for detecting the modulated light;
- Prior Art Chauvin et al. (Pub. No.: US 2001/0007483 A1) teaches a projection device having a display screen with a photosensor for detecting impingement of a marker contained in a projected picture;
- Prior Art Kandori et al. (Pub. No.: US 2003/0021497 A1) teaches a scanning system having a photosensor for detecting the scan speed and thereby monitoring the status of the scan mirror; and
- Prior Art Mazda et al. (U.S. Patent No. 6,636,274 B1) teaches a sensor system for monitoring the light emissions to an aperture.

Inquiry

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jori S. Reilly-Diakun whose telephone number is (571) 270-7555. The examiner can normally be reached on 7:30 AM to 5 PM EST, Monday thru Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Georgia Epps can be reached on (571) 272-2328. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/J. S. R./
Examiner, Art Unit 2878
04/08/2010

/Georgia Y Epps/
Supervisory Patent Examiner, Art Unit
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